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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,595	11/02/2000	Antonius H.M. Akkermans	PHN 17,721	2515

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EXAMINER	
ORTIZ CRIADO, JORGE L	
ART UNIT	**PAPER NUMBER**
2655	14

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/704,595	AKKERMANS, ANTONIUS H.M.	
	Examiner	Art Unit	
	Jorge L Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6 and 12* is/are allowed.

6)☒ Claim(s) *1-5,7-11 and 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03/09/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 1,3-5,7-11,13, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Gérard et al. U.S. Patent No. 4,561,082.

Regarding claim 1, Gérard discloses a device, for reading and or writing information from/onto an optical information carrier, said information stored in the form of differences in intensity level (See col. 1, lines 39-43), said device comprising:

-read means including imaging means for imaging a radiation beam so as to form a scanning spot by means of which the information carrier is scanned, and including detection means for generating a read signal, which is indicative of the intensity of the radiation reflected from the information carrier at the location of the scanning spot (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10),

-which device has an information transfer mode, in which the scanning spot is moved in a first direction with respect to the information carrier (col. 6, lines 10-16),

-which device has a displacement mode, in which the scanning spot is moved in a second direction transverse to the first direction (col. 5, lines 49-65)(col. 6, lines 21-25),

-control means for controlling the imaging means in response to a measurement signal which is indicative of the degree of focusing of the radiation beam at the location of scanning spot, which control means include sample and hold means for sampling and holding the measurement signal in response to a sample signal (col. 2, lines 39-56)(col. 3, lines 14-68)(col. 5, lines 47-65) (col. 6, lines 21-25)(col. 8, lines 41-67 to col. 9, lines 1-27)(col. 11, lines 33-63) (See Figs. 1,2, 3, 4, 5, 10)

-wherein the sample signal causes the measurement signal to be sampled either at locations having mutually the same intensity level or within a predetermined period of time (See col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 2, 3, 4, 5).

Regarding claim 3, Gérard discloses a device for reading and recording information on an optical information carrier, said information carrier having information stored therewithin as patterns formed by differences in intensity levels (See col. 1, lines 39-43; col. 7, lines 8-16; Figs. 1,2,3,4,5,6,9,10), said device comprising:

a read system adapted to read data from said optical information carrier, said read system further comprising a radiation beam source, a radiation beam, a device for focusing said radiation beam, a scanning spot formed with said focused radiation beam and proximate said optical information carrier, said scanning spot having an intensity (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10),

a motion control device for controlling movement of said scanning spot relative to said optical information carrier (col. 6, lines 10-16),

and for generating a read signal (SLS) which is indicative of the intensity of the radiation reflected from the information carrier at the location of the scanning spot, said read system further adapted to derive, from said optical information carrier via said scanning spot, a measurement signal, a radial error signal, and an information signal (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10);

and a signal generation system operatively coupled to said read system, said signal generation system adapted to produce a sample signal to control sampling of said measurement signal, said sample signal proportional to the intensity of said scanning spot, and wherein said sample signal causes the measurement signal to be sampled at locations having mutually the same intensity level or within predetermined time intervals (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10);

Regarding claim 9, Gérard discloses a method of reading information stored on an optical information carrier (See col. 1, lines 39-43; col. 7, lines 8-16; Figs. 1,2,3,4,5,6,9,10), said method comprising:

providing an optical information carrier (See col. 1, lines 39-43; col. 7, lines 8-16; Figs. 1,2,3,4,5,6,9,10),

said optical information carrier having a multilevel structure, and said optical information carrier bearing data recorded as patterns formed in the information carrier by differences in intensity levels (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

providing a read system adapted to read data from said optical information carrier, said read system further comprising a radiation beam source, a radiation beam, a device for focusing said radiation beam, a scanning spot formed with said focused radiation beam and proximate said optical information carrier, said scanning spot having an intensity (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10),

a motion control device for controlling movement of said scanning spot relative to said optical information carrier (col. 6, lines 10-16),

and for generating a read signal (SLS) which is indicative of the intensity of the radiation reflected from the information carrier at the location of the scanning spot, said read system further adapted to derive, from said optical information carrier via said scanning spot, a measurement signal, a radial error signal, and an information signal; and providing a signal generation system operatively coupled to said read system (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

said signal generation system adapted to produce a sample signal to control sampling of said measurement signal, said sample signal proportional to the intensity of said scanning spot, and wherein said sample signal causes the measurement signal to be sampled at locations having

mutually the same intensity level or within a predetermined time period (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

Regarding claims 4 and 10, Gérard discloses wherein said intensity of said scanning spot is an indicator of a location of the scanning spot with respect to the patterns provided in the information carrier (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 8, lines 41-67 to col 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10);

Regarding claims 5 and 11, Gérard discloses wherein said sample signal causes the measurement signal to be sampled at instants when said intensity is comparatively high and a periodic clock signal is received by said signal generation system (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

Regarding claim 7 and 13, Gérard discloses wherein said read system is adapted to operate in two operational modes:

an information transfer mode wherein said motion control device provides motion of said scanning spot in a tangential first direction with respect to an axis about which said information carrier is rotated (See col. 6, lines 10-16; Figs. 6, 7);

and a displacement mode wherein said motion control device provides motion of said scanning spot in a radial second direction, wherein said radial transverse direction is transverse to said first direction (See col. 5, lines 49-65; col. 6, lines 21-25; Figs. 6, 7).

Regarding claim 8, Gérard discloses wherein said read system further comprises a system for generating a logic signal which indicates that information is recorded on the information carrier in the form of differences in level of a surface of the information carrier (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

Regarding claim 14, Gérard discloses wherein said sampling of the measurement signal when said intensity is comparatively high results in a reduction of radial-to-vertical crosstalk (See col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63)

Regarding claim 15, Gérard discloses an apparatus for employing an optical onformation carrier (See col. 1, lines 39-43; col. 7, lines 8-16; Figs. 1,2,3,4,5,6,9,10), said apparatus comprising:

device for reading and recording information on said optical information carrier, said information carrier having information stored therewithin as patterns formed by differences in levels (col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10),

a read system adapted to read data from said optical information carrier, said read system further comprising a radiation beam source, a radiation beam, a device for focusing said radiation beam, a scanning spot formed with said focused radiation beam and proximate said optical information carrier, said scanning spot having an intensity (col. 1, lines 9-15, lines 36-43; col. 2,

lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10),

a motion control device for controlling movement of said scanning spot relative to said optical information carrier (col. 6, lines 10-16),

and a device for deriving, from said optical information carrier via said scanning spot, a measurement signal, a radial error signal, and an information signal (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

said signal generation system operatively coupled to said read system, said signal generation system adapted to produce a sample signal to control sampling of said measurement signal, said sample signal proportional to the intensity of said scanning spot, and wherein said sample signal causes the measurement signal to be sampled when said intensity is comparatively high or within a predetermined time period (See col. 1, lines 9-15, lines 36-43; col. 2, lines 39-56; col. 3, lines 24-46; col. 7, lines 8-16; col. 8, lines 41-67 to col. 9, lines 1-27; col. 11, lines 29-63; Figs. 1,2, 3, 4, 5, 6,9,10).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gérard et al. U.S. Patent No. 4,561,082 in view of Tateishi U.S Patent No. 5,636,197.

Gérard et al discloses all the limitation of base claim 1 as outlined above. But fail to disclose including means for measuring the time during which the measurement signal is held and means for causing the measurement signal to be sampled when the time exceeds a predetermined value.

However, this feature is well known in the art as evidenced by Tateishi, which disclose means for measuring the time during which the measurement signal is held and means for causing the measurement signal to be sampled when the time exceeds the predetermined period of time (col. 3, lines 22-46).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Gérard et al.'s invention by include means for measuring the time during which the measurement signal is held and means for causing the measurement signal to be sampled when the time exceeds a predetermined value, in order to provide focusing control on an optical information carrier as suggested by Tateishi.

Allowable Subject Matter

5. Claims 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed on 03/09/2004 have been fully considered but they are not persuasive.

Applicant's response to the rejection of the claim 2 as unpatentable over Gérard et al. in view of Tateishi.

Applicants argue that Tateishi does not disclose or suggest measuring the time during which the measurement signal is held and means for causing the measurement signal to be sampled when the time exceed a predetermined value.

The Examine cannot concur because Tateishi discloses measuring the time during which the measurement signal is held and means for causing the measurement signal to be sampled when the time exceed a predetermined value (See col. 3, lines 22-46; col. 5, lines 16, 30; col. 6, lines 40-64).

Applicants acknowledge that Tateishi discloses preventing the provision of a sampling pulse within a given time duration when the run-length is shorter than a predetermined length time period and the sample pulse will not be generated if a predetermined length time period has not yet expired by disabling the sample pulses (see page 9, Applicant's arguments filed on 03/09/2004). Hence measuring the time during which the measurement signal is held, when the predetermined length time period has not yet expired ("time not exceeded") not-causing/disabling the measurement signal to be sampled and causing/(enabling) the sample pulse when the predetermined length time period has expired ("time exceeded").

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

joc

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